

IN THE CLAIMS

1. A multi-layer, stand alone, film composition, comprising:
 - a.) a first water-soluble layer comprising :
 - i.) a neutral water soluble polymer; and
 - ii.) a polyvalent cationic ion source;
 - and
 - b.) a second water-soluble layer comprising an anionic water soluble polymerwherein the multi-layer film composition dissolves or disperses in water at a rate slower than any of the individual water-soluble layers.
2. A film composition according to claim 1, wherein the neutral water-soluble polymer is selected from the group consisting of hydroxybutyl cellulose, hydroxyethylmethyl cellulose, hydroxyethyl cellulose, hydroxypropyl cellulose, polyvinylpyrrolidone, polyvinylpyrrolidone/vinyl acetate copolymer, hydroxypropyl methylcellulose, methylcellulose, polyethyleneglycol, polyvinyl alcohol and mixtures thereof.
3. A film composition according to claim 1, wherein the polyvalent cationic ion source is selected from the group consisting of aluminum salts, chromium salts, calcium salts, zinc salts, magnesium salts, iron salts, barium salts, manganese salts, stannous salts and mixtures thereof.
4. A film composition according to claim 1, wherein the anionic water soluble polymer is selected from the group consisting of sodium alginate, pectin, carrageenan, carboxymethyl cellulose, sodium polyacrylate, sodium polymetacrylate, sodium maleate/methyl vinyl ether copolymer and mixtures thereof.
5. A multi-layer, stand alone, film composition, comprising :
 - a.) a first water-soluble layer comprising a cationic polymer; and
 - b.) a second water-soluble layer comprising an anionic polymer

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wherein the multi-layer film composition dissolves or disperses in water at a rate slower than any of the individual water-soluble layers.

6. A film composition according to claim 5, wherein the cationic water soluble polymer is selected from the group consisting of chitosan, polyquaternium-10, polyquaternium-11, polyquaternium-16, polyquaternium 24, polyquaternium-28, polyquaternium-44, polyquaternium-46, polyvinylpyrrolidone/dimethylaminopropyl methacrylamide copolymer and mixtures thereof.
7. A film composition according to claim 5, wherein the anionic water soluble polymer is selected from the group consisting of sodium alginate, pectin, carrageenan, carboxymethyl cellulose, sodium polyacrylate, sodium polymethacrylate, sodium maleate/methyl vinyl ether copolymer and mixtures thereof.
8. A multi-layer, stand alone, film composition, comprising:
 - a.) a first water-soluble layer comprising :
 - i.) a neutral water soluble polymer; and
 - ii.) an anionic or cationic surfactant;and
 - b.) a second water-soluble layer comprising:
 - i.) a neutral water soluble polymer;
 - ii.) water-soluble saltwherein the multi-layer film composition dissolves or disperses in water at a rate slower than any of the individual water-soluble layers.
9. A film composition according to claim 8, wherein the neutral water-soluble polymer of the first water-soluble layer is selected from the group consisting of hydroxyethyl cellulose, hydroxypropyl cellulose, polyvinylpyrrolidone, polyvinylpyrrolidone/vinyl acetate copolymer, hydroxypropyl methylcellulose, methylcellulose, polyethyleneglycol, polyethylene oxide, polyethylene oxide/ polypropylene oxide block copolymer, polyvinyl alcohol and mixtures thereof.

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10. A film composition according to claim 8, wherein the anionic surfactant is selected from the group consisting of sodium lauryl sulfate, sodium dodecyl benzenesulfonate, sodium C12-15 pareth-15 sulfonate, sodium methyl cocoyl taurate, disodium lauryl sulfosuccinate and mixtures thereof.
11. A film composition according to claim 8, wherein the cationic surfactant is selected from the group consisting of cetyl pyridinium chloride, benzalkonium chloride, dodecyl trimethylammonium chloride and mixtures thereof.
12. A film composition according to claim 8, wherein the water-soluble salt is selected from the group consisting of sodium chloride, potassium chloride, magnesium chloride, calcium chloride, zinc chloride, sodium acetate, sodium fluoride, sodium phosphate, potassium phosphate, sodium citrate, sodium oxalate, acidic salts thereof and mixtures thereof.
13. A multi-layer, stand alone, film composition, comprising:
 - a.) a first water-soluble layer comprising:
 - i.) a neutral water soluble polymer; and
 - ii.) an anionic surfactant;and
 - b.) a second water-soluble layer comprising a cationic water soluble polymerwherein the multi-layer film composition dissolves or disperses in water at a rate slower than any of the individual water-soluble layers.
14. A film composition according to claim 13, wherein the neutral water-soluble polymer is selected from the group consisting of hydroxyethyl cellulose, hydroxypropyl cellulose, polyvinylpyrrolidone, polyvinylpyrrolidone/vinyl acetate copolymer, hydroxypropyl methylcellulose, methylcellulose, polyethyleneglycol, polyethylene oxide, polyethylene oxide/polypropylene oxide block copolymer, polyvinyl alcohol and mixtures thereof.

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15. A film composition according to claim 13, wherein the anionic surfactant is selected from the group consisting of sodium lauryl sulfate, sodium dodecyl benzenesulfonate, sodium C12-15 pareth-15 sulfonate, sodium methyl cocoyl taurate, disodium lauryl sulfosuccinate and mixtures thereof.
16. A film composition according to claim 13, wherein the cationic water soluble polymer is selected from the group consisting of chitosan, polyquaternium-10, polyquaternium-11, polyquaternium-16, polyquaternium 24, polyquaternium-28, polyquaternium-44, polyquaternium-46, polyvinylpyrrolidone/dimethylaminopropyl methacrylamide copolymer and mixtures thereof.
17. A film composition, comprising:
 - a first water-soluble layer a cationic surfactant;
and
 - b.) a second water-soluble layer comprising an anionic water soluble polymer;wherein the multi-layer film composition dissolves or disperses in water at a rate slower than any of the mixtures thereof.
18. A film composition according to claim 17, wherein the neutral water-soluble polymer is selected from the group consisting of hydroxyethyl cellulose, hydroxypropyl cellulose, polyvinylpyrrolidone, polyvinylpyrrolidone/vinyl acetate copolymer, hydroxypropyl methylcellulose, methylcellulose, polyethyleneglycol, polyethylene oxide, polyethylene oxide/polypropylene oxide block copolymer, polyvinyl alcohol and mixtures thereof.
19. A film composition according to of claim 17, wherein the cationic surfactant is selected from the group consisting of sodium chloride, potassium chloride, dodecyl trimethylammonium chloride and mixtures thereof.
20. A film composition according to claim 17, wherein the anionic water soluble polymer is selected from the group consisting of sodium alginate, pectin, carrageenan,

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carboxymethyl cellulose, sodium polyacrylate, sodium polymethacrylate, sodium maleate/methyl vinyl ether copolymer and

21. A tri-layer, stand alone, film, comprising:

- a.) a first water soluble layer comprising a charged entity;
- b.) a second water soluble layer comprising a charged entity; and
- c.) a complex layer formed by the interaction of the charged entities of the first and second layers

wherein the tri-layer film composition dissolves or disperses in water at a rate slower than either the first or second water-soluble layers.

22. A method of manufacturing multilayer film compositions, comprising the steps of:

- a.) preparing at least one aqueous solution containing a charged first polymer or nonionic polymer comprising a charged species;
- b.) casting, spreading or spraying the aqueous solution to form a first polymer layer;
- c.) drying the first polymer layer;
- d.) preparing a second aqueous solution comprising a second polymer having a charge opposite that of the first polymer or opposite the charged species of the first polymer or the second polymer having a the charged species having a charge opposite that of the first polymer or opposite the charged species the first polymer;
- e.) casting, spreading or spraying the second aqueous solution to form a second layer; and
- f.) drying the second polymer layer on the first polymer layer to form a multi-layered film.

23. A method of treating the skin, teeth or oral mucosa comprising the step of applying to the skin, teeth or oral mucosa the multi-layered film composition of Claim 1.